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Subject: RE: follow-up
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Sender: rick@gatesfoundation.org
From: rick@gatesfoundation.org
To: varmus@mskcc.org

I have a very rough draft of the idea, which I have already assumed (presumptuously, as usual) that you will play a central role in. This was dashed off on the plane, so take it as a very early attempt. Let's talk soon as I would like to move the idea forward as soon as possible.
It was really good to see you in NY. It would be good to make it a more regular event.
Rick
-----Original Message-----
From: Harold Varmus [mailto:varmus@mskcc.org]
Sent: Monday, September 30, 2002 10:01 AM
To: Rick Klausner
Subject: follow-up

Rick: I very much enjoyed the chance to catch up with you in NYC ten days ago. (Sorry to have jumped ship before you got back to RockFound on Friday AM, but the meeting was excruciatingly BORING!) I would like to continue our conversation about global science and am writing to encourage you to jot down a bit more precisely what you'd like me to consider doing. It would be fun to do such important stuff together, but I need to think more concretely about what would be entailed. Thanks, and best to Cecile. Harold

To: Sally Stansfield
Subject: ARODMI Challenge Grants
Concept

We propose to establish a high impact and novel grants program aimed at furthering both the goals of the Global Health Program of the BMGF and the field of global heath. Its goal is to stimulate the research community to tackle, in a more concerted way, critical unsolved problems that limit our current ability to create the tools and technologies necessary to achieve global health equity and create solutions for the diseases that effect the most impoverished. These grants will directly leverage research project investments of the public sector, particularly the NIH, by creating small communities of researchers willing to work together to systematically address critical problems in global health. The approach will be akin to the "grand challenge" approach common to mathematics and the physical sciences but rarely practiced in the biological sciences. One major exception to this rarity in biology and medicine has been the very successful genome projects which have raised a fundamental question about how to organize biologic and medical science which is currently funded overwhelmingly as isolated, individually initiated projects towards more systematically attacking high priority problems. This transition from project-oriented to problem-oriented science provides a real opportunity for the BMGF to accelerate progress in addressing the diseases of the most impoverished (DMI).

These ARODMI (Applied Research on Diseases of the Most Impoverished) Challenge Grants will accomplish several goals consistent with the aims of the GH program of the BMGF.

1. They will speed the creation of answers to critical questions

that are not being systematically or strategically addressed.

2. They will focus on the most important diseases of the developing world.
3. They will focus attention and excitement of the most creative researchers throughout the world towards ignored diseases or knowledge and technology bottlenecks.
4. They will create communities of researchers working towards measurable outcomes.
5. They will leverage upon high quality publicly funded research.
6. They will create an articulated set of critical questions for the field of global health sciences.

Approach

Each year a set of „grand challenge‰ questions would be posed as the basis for a call for applications for programs that attempt to answer the grand challenges. While individual submissions would be entertained, the RFA would call for consortia to come together to propose solutions. Submitted ideas and approaches would be reviewed and a consortium of investigators that might include networks created after the submission and review process. Projects would be funded according to both the proposed scope of work and paid according to specific milestones.

The program would be overseen by a Scientific Oversight Committee, chaired by Harold Varmus and would represent a diverse set of leaders and thinkers in the areas relevant to global health. They would establish a set of processes of determining and prioritizing the grand challenges. The publication of these grand challenges will not only signal a call for applications but will stimulate discussion in the community and lay out a more accessible articulation of what science can do to help solve critical problems in global health.

A small working group made up of Foundation Global Health Leadership, Varmus and a few other potential members of the Scientific Oversight Board would meet to propose the details of the processes by which grand challenge questions would be formulated, grant application guidelines will be developed, review processes put in place and monitoring and oversight would be conducted.

Size, Scope and Administration

A fund of $100-200 million would be established by the BMGF to support the program. The scope would be determined by overall concept proposals to be submitted to the benefactors for approval but would reflect the priority areas of the BMGF Global Health Programs. Focus on a small number of problems (up to 3 a year) would make it easier to concentrate adequate resources, set priorities and monitor progress. The fund could be established as an account at the independent NIH Foundation who would administrate the program and connect it to NIH and NIH-funded researchers. Grantees would include a minimum fraction who had NIH or other high quality funding as the basis for entering each grand challenge consortium, thus leveraging our dollars on other funded research. I addition, we will approach NIH and other funders such as the Wellcome Trust, to join in the fund for the ARODMI Challenge Grants.

Examples of Grand Challenges in Global Health R & D

1) Malaria:
   a. When individuals become immune to malaria, what malarial antigens is the immune system seeing?

b. Is there a toxin that is responsible for death from malaria and could that be a vaccine target?
c. Can sporozoites be grown in culture?

2) Tuberculosis
a. What drug targets are responsible for the latent state/survival of the bacillus?
b. What is the explanation of the confusion about whether or not BCG protects against TB?

3) HIV/AIDS
a. Is an attenuated virus as a vaccine achievable?
b. What is the immune response that controls HIV infection?

ARODMI Challenge Grants.rtf